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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,308	06/13/2000	Cary Lee Bates	ROC920000014	7379

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EXAMINER

SMITH, PETER J

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/592,308	Applicant(s) BATES ET AL.	
	Examiner Peter J. Smith	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4,6-9,12,13,15-18,21,22 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,4,6-9,12,13,15-18,21,22 and 24-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This action is responsive to communications: RCE amendment filed on 7/29/2005.
2. Claims 3-4, 6-9, 12-13, 15-18, 21-22, and 24-30 are pending in the case. Claims 3, 12, and 21 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 3-4, 6-8, 12-13, 15-17, 21-22, 24-26, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Travis, US 5,604,897 patented 2/18/1997 in view of Fein et al. (hereinafter “Fein”), US 5,940,847 filed 1/31/1997 and Rogson, US 6,918,086 filed 3/28/2000.

Regarding independent claims 3, 12, and 21, Travis teaches recording each word contained in a first document as pre-edited contents in fig. 1-2 and col. 2 line 54 – col. 4 line 27. Travis teaches receiving user edits replacing each problem word contained in the document with a respective replacement word in fig. 1-2 and col. 2 line 54 – col. 4 line 27. Travis teaches after receiving the user edits, recording each word contained in the edited first document as post-edited contents and comparing the pre-edited contents to the post-edited contents to identify the problem words and the respective replacement words, and storing the user-replaced problem words and respective replacement words to a first data structure, where each user-replaced problem word is associated with the respective replacement word in fig. 1-2 and col. 2 line 54 – col. 4 line 27. Travis teaches determining whether one or more problem words are present in a second document utilizing the first data structure in fig. 2 and col. 2 lines 8-16.

Travis does not teach that the user-replaced problem words and replacement words are stored in an individual record of the first data structure. Fein does teach storing each user-replaced problem word and respective replacement pairs into an individual record of a data structure to form a customized substitution list in the abstract and col. 3 lines 30-61. Fein teaches a need and solution for user created and customized spelling correction lists. The user may create and save problem words and respective replacements into an individual record specific to the user. Travis does not teach wherein each individual record includes a field

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indicating a number of times a respective user-replaced problem word has been replaced by its associated replacement word. Travis does not teach assigning a formatting definition to each problem word for use in identifying problem words on a display device, wherein the formatting definition to each problem word for use in identifying problem words on a display device, wherein the formatting definition is reflective, on a display device displaying the respective problem word, of the number of times the respective problem word has been replaced by its associated replacement word or indicating each problem word present a second document with its respective formatting definition. Rogson does teach a field indicating a number of times a respective user-replaced problem word has been replaced by its associated replacement word in fig. 6, 8-10, col. 4 lines 45-47, and col. 5 lines 15-20. Rogson also teaches assigning a formatting definition to each problem word for use in identifying problem words on a display device, wherein the formatting definition to each problem word for use in identifying problem words on a display device, wherein the formatting definition is reflective, on a display device displaying the respective problem word, of the number of times the respective problem word has been replaced by its associated replacement word and indicating each problem word present a second document with its respective formatting definition in fig. 5, 8, 10, 11, col. 2 lines 18-35, col. 3 line 11 – col. 4 line 25, and col. 5 lines 31-64.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Fein and Rogson into Travis to have created the claimed invention. It would have been obvious and desirable to have used the individual user customization of Fein to have created separate user records in the data structure of Travis so that the a customized spelling correction list could have been available to each user of the system. It

would have been obvious and desirable to have used the problem word replacement frequency counting and corresponding format definition as taught by Rogson to have formatted problem words in a second document in accordance with the frequency. Rogson teaches the frequency counting is useful for improving the updating of a problem and replacement word file in col. 2 lines 7-15. With the teachings of Travis, Fein, and Rogson, the combined invention would have filled a first data structure with individual user records storing problem word and replacement word pairs with the associated replacement frequency. The data structure would have associated a formatting definition with each pair based on the associated frequency and would have subsequently applied the formatting definition to the problem word in a second document.

Regarding dependent claims 4, 13, and 22, Travis does not teach separately storing the pre-edited contents and the post-edited contents to a second data structure, wherein each record of the second data structure includes a pre-edited word field containing pre-edited content, a post-edited word field containing corresponding post-edited content and a changed indication field containing an indicator indicating whether the pre-edited and the corresponding post-edited content are different. Travis does not teach the second data structure because the pairs stored by Travis are necessarily changed and thus do not need the changed indication field because all of the word pairs in the Travis data structure are changed. Travis does teach in fig. 2 providing the user with an option to correct a problem word or not. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Travis to have maintained a second data structure based on the user response in fig. 2 of Travis which would have included a pre-edited word field, a post-edited word field and a changed indication field so that the user could have also automated not correcting problem words in future documents.

Regarding dependent claims 6, 15, and 24, Travis does not teach assigning a priority value to each problem word based on the number of times a respective problem word has been replaced by its associated replacement word. Rogson does teach assigning a priority value to each problem word based on the number of times a respective problem word has been replaced by its associated replacement word in fig. 5, 8, 10, 11, col. 2 lines 18-35, col. 3 line 11 – col. 4 line 25, and col. 5 lines 31-64. In Rogson, the priority value is the list which the problem word is contained in. The problem words on the static list have a higher priority value over the problem words on the dynamic list. Once the frequency reaches the threshold number, the priority value of the problem word is raised by elevating the problem word from the dynamic list to the static list. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Travis, Fein, and Rogson to have created the claimed invention. It would have been obvious and desirable to have used the variable priority of Rogson so that the problem words in a second document would have been automatically formatted differently according to each word's associated priority as is taught by Rogson in fig. 10 and col. 2 lines 7-35.

Regarding dependent claims 7, 16, and 25, Travis does not teach wherein the formatting definition is based on the priority value. Rogson does teach wherein the formatting definition is based on the priority value in fig. 5, 8, 10, 11, col. 2 lines 18-35, col. 3 line 11 – col. 4 line 25, and col. 5 lines 31-64. In Rogson, the priority value is the list which the problem word is contained in. The problem words on the static list have a higher priority value over the problem words on the dynamic list. Once the frequency reaches the threshold number, the priority value of the problem word is raised by elevating the problem word from the dynamic list

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to the static list. Each list has a different formatting associated with it so the words are treated differently in when identified in a second document. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Travis, Fein, and Rogson to have created the claimed invention. It would have been obvious and desirable to have used the variable priority of Rogson so that the problem words in a second document would have been automatically formatted differently according to each word's associated priority as is taught by Rogson in fig. 10 and col. 2 lines 7-35.

Regarding dependent claims 8, 17, and 26, Travis does not teach wherein the formatting definition is based on the priority value. Rogson does teach wherein the formatting definition is based on the priority value in fig. 5, 8, 10, 11, col. 2 lines 18-35, col. 3 line 11 – col. 4 line 25, and col. 5 lines 31-64. In Rogson, the priority value is the list which the problem word is contained in. The problem words on the static list have a higher priority value over the problem words on the dynamic list. Once the frequency reaches the threshold number, the priority value of the problem word is raised by elevating the problem word from the dynamic list to the static list. Each list has a different formatting associated with it so the words are treated differently in when identified in a second document. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Travis, Fein, and Rogson to have created the claimed invention. It would have been obvious and desirable to have used the variable priority and associated formatting of Rogson so that the problem words in a second document would have been automatically formatted the same if they have the same priority as is taught by Rogson in fig. 10 and col. 2 lines 7-35.

Regarding dependent claims 28, 29, and 30, Travis does not teach receiving user identification and storing the user identification in association with the first data structure. Fein does teach a user-specific and user-customizable data structure containing an individual record of problem words and respective replacements in the abstract and col. 3 lines 30-61. The customized substitution list must inherently receive a user identification in order to provide the correct list to a particular user and the list inherently associates the user identification with the word-replacement pairs contained in the list for a particular user. It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined Fein into Travis to have created the claimed invention. The user customization taught by Fein would have allowed for the personalization of the spelling correction for each user of the system.

5. Claims 9, 18, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Travis, US 5,604,897 patented 2/18/1997 in view of Fein et al. (hereinafter "Fein"), US 5,940,847 filed 1/31/1997 and Rogson, US 6,918,086 B2 filed 3/28/2000 as applied to claims 8, 17, and 26 above, and further in view of Cai et al. (hereinafter "Cai"), US 6,175,834 B1 filed 06/24/1998.

Regarding dependent claims 9, 18, and 27, Travis does not teach wherein the formatting definition is selected from one of a color, a shading, a textual modification, an underline and any combination thereof. Cai teaches wherein the formatting definition is selected from one of a color, a shading, a textual modification, an underline and any combination thereof in col. 8 lines 18-22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Travis, Fein, Rogson, and Cai to have

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created the claimed invention. It would have been obvious and desirable to have highlighted the problem words so that the user could have easily viewed them in the document as is taught by Cai in col. 8 lines 18-22.

Response to Arguments

6. Applicant's arguments with respect to claims 3-4, 6-9, 12-13, 15-18, 21-22, and 24-30 have been considered but are moot in view of the new grounds of rejection. The Examiner has found the prior art reference of Rogson which teaches counting the frequency a problem word has been corrected by a replacement word. Rogson uses two lists which determine how the problem word is treated, or formatted under the broadest reasonable interpretation, in subsequent documents. Since the problem words on the first and second lists are treated differently, they are subject to different formatting definitions. Thus, the Examiner believes Rogson in combination with the previously cited prior art references teaches or suggests each limitation of the invention as claimed.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Church, US 5,572,423 patented 11/5/1996 discloses correcting spelling using error frequencies. Newbold et al., US 5,576,955 patented 11/19/1996 discloses proofreading a document and correcting spelling errors. Driscoll et al., US 5,987,302 patented 11/16/1999 discloses an on-line essay evaluation system. Liu et al., "Adaptive Post-Processing of OCR Text

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Via Knowledge Acquisition", Proceedings of the 19th annual conference on Computer Science published by ACM Press, 1991, pages 558-569.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J. Smith whose telephone number is 571-272-4101. The examiner can normally be reached on Mondays-Fridays 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PJS
10/13/2005

William L. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
10/13/2005